The distribution of emergency service patients according to the who 32 emergency parameter

Emergent cases

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Öz

Giriş: Araştırmanın amacı Sivas Türkiye Hastanesi acil servisine gelen hastaların Dünya Sağlık örgütü (WHO) 32 acil durum parametresine göre gruplandırıp geriye dönük acil olayları değerlendirmektir. Gereç ve Yöntem: Sivas Türkiye Hastanesi yetişkin acil servisine 112 acil ambulansı vasıtasıyla getirilen hastalar bilgisayar kayıt sisteminden araştırılarak Dünya Sağlık örgütünün 32 parametresine göre gruplandırıldı. Ayrıca her hastanın yaş, sosyal güvence, cinsiyet ve hastane yatış durumuna göre ikinci bir gruplamaya daha gidildi. Bulgular: Ambulansla acil servise başvuran hastanın 600 hastanın %34.2 (n=205) acil olarak değerlendirildi. Acil olarak kabul edilen hastalar Dünya Sağlık Örgütünün 32 parametresine göre gruplandırıldı. Acil servise gelen hastaların cinsiyetleri acil durumla alakalı değildi. Yatışı gerektiren acil vakalar yaşlı ve sosyal güvenceleri olan hastalardı. Tartışma: Sonuçlara bakıldığında görülüyor ki acil durumda olduğunu belirten ve ambulans hizmeti isteyen hastalarının çoğu aslında acil olarak değerlendirilmemektedir. Bu da hastada gerekli bilincin yaratılması gerektiğini ortaya çıkarmıştır.

Anahtar Kelimeler

Dünya Sağlık Örgütü(WHO); Acil Servis; Ambulans

Abstract

Aim: The objective of this research is to evaluate the emergency of the patients coming to the emergency service of Sivas Turkish Hospital by grouping them according to the World Health Organization's (WHO) 32 emergency parameters. Material and Method: Sivas Turkish Hospital patients that were brought in by an emergency ambulance were grouped according to the WHO's 32 parameters by the data on their computer registries. Also, according to the age, gender, and hospitalization status of each patient, a second grouping was performed. Results: 34.2% (n = 205) of emergency patients were evaluated as urgent. These patients were grouped according to 32 WHO parameters. The gender of the patient was not related to the emergency. The urgent cases requiring admission were the elderly and those with social security. Discussion: We saw that ambulance requirement was not essential in most cases. As patients are unaware of their situation, their knowledge of emergency service treatment needs to be expanded.

Keywords

WHO; Emergency; Ambulance

Introduction

Emergency health services are pre-hospital outpatient extensions for emergency health care. The concept of transporting patients and injured to the health care extends to ancient Roman times. However, the basis of emergency medical services, as we know it nowadays, have been taken in administrative and clinical developments in the 1060s and 1970s [1].

Vehicles used for patient transport may be land ambulances, helicopters, aircraft ambulances, or various emergency response vehicles (fire or police vehicles). The land ambulance is the most commonly used tool in the field [1]. All of the patients brought to the emergency department of Sivas Turkish Hospital were brought in by a land ambulance.

Patients brought to Sivas Turkish Hospital are delivered to the emergency service from a different entrance door from distant patients. The records of the patient are registered at the same time. This study benefited from these records.

Emergency departments are easily accessible units at the entrance of the hospital where 24-hour uninterrupted medical services are provided. Variables such as special conditions, insurance, and social security institution payment criteria can play a role in the application except for the medical requirement, depending on the patient and social situation. Without focusing on these variables, careful evaluation of each hospitalized emergency patient is expected [2,3,4]. Improper use of this immediate health care is obvious. Similar inappropriate use for emergency ambulance system is valid. It is unexpected that all ambulance calls are made for situations that life-threatening [2, 3].

In this study, it is aimed to have an understanding of whether the patients who came with the ambulance were urgent or not and the grouping of the urgent cases according to World Health Organization criteria was done.

Material and Method

The study is carried out in the emergency service of Sivas Turkish Hospital and between June and July of 2017. A total of 600 patients were evaluated retrospectively. The emergency medical records of the patients and the International Classification of Diseases-10 (ICD-10) diagnostic codes were examined and grouped according to the World Health Organization's 32 emergency parameters [2]. A chi-square test was used as a statistical analysis test. In the evaluation of the data, the p value found to be less than 0.05, was considered statistically significant.

Of the 600 patients who came with an ambulance, 329 (54.8%) were male, 61-80 were the most frequent age group (26.7%), and 567 (94.5%) of them were made suggestions to and given prescriptions. 578 (96.3%) patients were transferred from the city center, and 491 (81.8%) of the patients were evaluated as non-judicial. 205 (34.2%) patients were accepted as emergency cases according to the WHO's 32 emergency parameters. 86 (14.3%) of these cases were traffic accidents, and according to WHO's 32 emergency parameters, the most cases are in this group.

Among the oldest group 81-100 (n = 54, 9%), myocardial infarction was the most common illness. The second one that we commonly come across with the same group is the asthma crisis. Patients in the 61-80 age group (n = 157, 26.2%), who were the most to visit emergency services, came to our hospital mostly with myocardial infarction and asthma attack, successively. Most of the hospitalized patients were male (n = 19, 63.3%) in 61-80 age group (n = 14, 46.7%) with myocardial infarction (n = 12, 40.0%). Urgency rate was higher in the patients coming from the city center (n = 374, 94.7%) compared to the patient coming from district centers (n = 21, 5.3%).

16.7% (n = 5) of the patients who came to the emergency center from the district center and 83.3% (n = 25) of those who came from the city center were lying. The number of emergency patients was found to be significantly higher in the center according to the province (p = 0.003).

Patients between the ages of 81 and 100 and patients between the ages of 61 and 80 mostly suffered from the myocardial infarction group diseases. Patients between the ages of 21-40 and 41-60 were urgent because of the traffic accidents.

Table 1. World Health Organization's 32 emergency parameters

Drowning	Myocardial infarctus, arrhythmia, hypertension
Traffic accidents	Decompression
Terror, sabotage, gunshot, Stabbing, fighting, etc.	Asthma attack, acute respiratory problem
Suicide attempt	Every probable situation causing loss of consciousness
Rape	Sudden paralysis
Falling from high	Serious general impairment
Electric shock	Diabetics, uremic coma
Freezing, cold strike	Dialysis patient with the general impairment
Heat stroke	Acute abdomen
Severe burning	Acute massive bleeding
Serious eye injuries	Meningitis, encephalitis, brain abscess
Serious allergies, anaphylaxis	Migraine or vomiting, headaches with unconsciousness
Spine and lower extremity fractures	Acute psychotic situations
Newborn comas	Water discharge during started delivery

Table2. Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Man	329	54,8	54,8	54,8
	Woman	271	45,2	45,2	100,0
	Total	600	100,0	100,0	

Table3. Results

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Prescribed	567	94,5	94,5	94,5
	Discharged	3	,5	,5	95,0
	Hospitalized	30	5,0	5,0	100,0
	Total	600	100,0	100,0	

Table 4. Location

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	District	22	3,7	3,7	3,7
	City center	578	96,3	96,3	100,0
	Total	600	100,0	100,0	

Table 5. Judicial event

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Judicial event	109	18,2	18,2	18,2
	Not judicial event	491	81,8	81,8	100,0
	Total	600	100,0	100,0	

Table 6. Illness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		205	34,2	34,2	34,2
	Acute abdomen	5	,8	,8	35,0
	Acute massive bleeding	1	,2	,2	35,2
	Acute psychotic situations	6	1,0	1,0	36,2
	Sudden paralysis	12	2,0	2,0	38,2
	Asthma attack, acute respiratory problem	54	9,0	9,0	47,2
	Headaches	6	1,0	1,0	48,2
	Every probable situation causing loss of consciousness	52	8,7	8,7	56,8
	Serious allergies, anaphylaxis	1	,2	,2	57,0
	Serious general impairment	1	,2	,2	57,2
	Serious eye injuries	1	,2	,2	57,3
	Serious work accident	2	,3	,3	57,7
	Serious burns	3	,5	,5	58,2
	Diabetics, uremic coma	2	,3	,3	58,5
	Electrick schock	1	,2	,2	58,7
	Dialysis patient with the general impairment	1	,2	,2	58,8
	Heart stroke	1	,2	,2	59,0
	Suicide attempt	1	,2	,2	59,2
	Fighting	14	2,3	2,3	61,5
	Myocardial infarctus, arrhytmia, hypertension	46	7,7	7,7	69,2
	Renal Colic	10	1,7	1,7	70,8
	Traffic accident	86	14,3	14,3	85,2
	High fever	5	,8	,8	86,0
	Falling from high	73	12,2	12,2	98,2
	Poisoning	11	1,8	1,8	100,0
	Total	600	100,0	100,0	

Table 7. Urgency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Urgent	395	65,8	65,8	65,8
	Not urgent	205	34,2	34,2	100,0
	Total	600	100,0	100,0	

Table 8. Urgency and location

		District center	City center	Total
Urgent	Count	21	374	395
	% within emergency	5,3%	94,7%	100,0%
Not urgent	Count	1	204	205
	% within Emergency	0,5%	99,5%	100,0%
Total	Count	22	578	600
% within Emergency	3,7%	96,3%	100,0%	

Table 9. Location and results

			District center	City center	Total
Results	Prescribed	Count	17	550	567
		% within Total	3,0%	97,0%	100,0%
	Discharged	Count	0	3	3
		% within total	0,0%	100,0%	100,0%
	Hospitalized	Count	5	25	30
		% within total	16,7%	83,3%	100,0%
Total	Count		22	578	600
% within total	3,7%		96,3%	100,0%	

attempts while transporting the patient safely.

Female gender is higher among emergency patients, while male gender is higher in ambulance patients. It is reported in the literature that men seek higher ambulance use and pre-hospital emergency medical services. However, our data are insufficient to explain this phenomenon scientifically [5,6-9]. In our study, male gender applied more urgently with an ambulance. In the study of Atilla and colleagues, geriatric patients used ambulances more [5]. The same results have been achieved in our study. High discharge rates of ambulance patients are reported as one of the criteria for inappropriate use of ambulances, according to a meta-analysis by Snooks et al. [5,10]. Despite the different criteria used in this meta-analysis, inappropriate use rates were found to be 34-51% in the UK, 42% in Canada, 11% in New York and 30% in Baltimore [5,10]. Atilla and his colleagues found this rate to be 70% [5]. In our study, there was more inappropriate use rate than other studies, and the rate was 94.5%.

Considering all agreement to the Kaldırım and colleagues' study, 37.95% (n = 837) of patients who complain of geriatric illness were really geriatric patients [11]. In our study, geriatric patients were more hospitalized than others. In the study of the Yaylacı and friends, 62.3% (n = 71) of the patients complied with WHO-designated international admissions and 32 emergency conditions. 37.7% (n = 43) of the applications were not considered urgent according to the same parameters. 36.8% (n = 26) of the cases were trauma, 16.9% (n = 12) infectious causes, 16.9% (n = 12) neurological emergencies and 15.4% of the cases (N = 11) have cardiovascular emergencies [2]. In our study, 34.2% (n = 235) was accepted as urgent according to WHO's 32 emergency parameters. With 14.3% (n = 86) the majority of emergency cases were traffic accidents. In the study of the Yaylacı and his colleagues, 15.8% (n = 18) of asthma were recorded as forensic cases. In our study, 18.2% (n = 109) cases were judged to be judicial. The rate of forensic cases is parallel to the literature.

Discussion

Transportation to the hospital with an ambulance is the most important part of the pre-hospital health service. Transfer between hospitals takes place again with ambulances. The most important feature of today's ambulances is that it allows the health personnel to perform necessary airway and breathing

The most frequent patient group was elderly patients. The cardiac and respiratory problems encountered in this patient group are parallel to the literature. Traffic accidents are the most common group of cases, and the results may be deceptive because the research covers the patients in spring and summer. Patient education will be beneficial for the optimal use of emergency facilities and ambulance because the majority of patients coming to the emergency room with an ambulance are non-emergency patients.

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